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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,534	01/06/2004	Roger A. Fratti	20-750	3276

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MANELLI DENISON & SELTER PLLC
7th Floor
2000 M Street, N.W.
Washington, DC 20036-3307

EXAMINER	
AHN, SAM K	
ART UNIT	**PAPER NUMBER**
2611	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/751,534	FRATTI, ROGER A.	
	Examiner	Art Unit	
	Sam K. Ahn	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,9-11 and 13-19* is/are rejected.

7)☒ Claim(s) *8,12 and 20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *010604*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-7,9-11 and 13-19 are rejected under 35 U.S.C. 102(b) as being anticipated by RF3730 Limiting Amp – Serial AT 3.125Gbps, RF Micro-Devices (cited in the IDS, hereinafter, RF3730).

   RF3730 teaches a data receiver (see Fig.1 on page 13-4) comprising: a limiting amplifier comprising a plurality of amplifier stages (see input of the first amplifier coupled to C1 and C2 and output of the third amplifier coupled to Out+ and Out-, and note first paragraph of Limiting Amplifier having plural stages); a peak detector measuring a voltage level of an input to said limiting amplifier (level detect block measuring the signal that is also provided to the limiting amplifier, wherein one skilled in the art would recognize that the level detect element measures signals of voltage levels, note pin 2 and 4 on page 13-3 receiving input voltages which is coupled to the level detect block), an input to said peak detector being connected directly to an input of a first one of said plurality of amplifier stages of said limiting amplifier (see Fig.1, input to level detect block connected directly to input of the first amplifier); wherein a mismatch in impedance of transmission lines used between said input to said peak detector

and said input of said first one of said plurality of amplifier stages of said limiting amplifier is minimized (note p.13-6 wherein the input to the IC, pin 2 and pin 4 receiving an input signal, which is coupled to the first amplifier and the level detect block in Fig.1 is impedance matched by placing capacitors (note page 13-6) such that said peak detector appears as a load with insignificant capacitance with respect to an extremely high data rate of a signal on said input (receiving signals of high data rate of 3.5Gbps, note first paragraph on page 13-1, passing through the capacitors C1 and C2, hence, one skilled in the art would recognize that the level detect block would appear as a load with insignificant capacitance with respect to the high data rate).

Regarding claim 2, RF3730 further teaches an impedance of said transmission line is between 33 ohms and 75 ohms throughout a frequency range of operation (50 ohms, see Fig.2).

Regarding claim 3, RF3730 further teaches wherein said frequency range of operation is between 10 MHz and 25 GHz (4 GHz, see under Features on page 13-1).

Regarding claim 4, RF3730 further teaches a latch circuit connected to an output of said peak detector (LOS ALARM performing a switching operation between

logic high and logic low, hence one skilled in the art would recognize that LOS ALARM performs the function of a latch circuit).

Regarding claim 5, RF3730 further teaches said peak detector and said latch circuit form a loss of signal circuit detecting a loss of signal input to said limiting amplifier (level detect block and LOS ALARM, Loss-of-Signal Alarm block, note page 13-4).

Regarding claim 6, RF3730 further teaches said extremely high data rate of said signal on said input is at least OC48 equivalent (Gigabit and 10 Gigabit Ethernet Optical Transceivers, note under Typical Applications on page 13-1).

Regarding claim 7, RF3730 further teaches wherein: said extremely high data rate of said signal on said input is at least OC192 equivalent (Gigabit and 10 Gigabit Ethernet Optical Transceivers, note under Typical Applications on page 13-1).

Regarding claim 9, the claim is rejected as applied to claim 1 with similar scope.
Regarding claim 10, the claim is rejected as applied to claim 2 with similar scope.
Regarding claim 11, the claim is rejected as applied to claim 3 with similar scope.
Regarding claim 13, the claim is rejected as applied to claim 6 with similar scope.
Regarding claim 14, the claim is rejected as applied to claim 7 with similar scope.

Regarding claim 15, the claim is rejected as applied to claim 4 with similar scope.

Regarding claim 16, the claim is rejected as applied to claim 5 with similar scope.

Regarding claim 17, the claim is rejected as applied to claim 1 with similar scope.

Regarding claim 18, the claim is rejected as applied to claim 2 with similar scope.

Regarding claim 19, the claim is rejected as applied to claim 3 with similar scope.

Allowable Subject Matter

2. Claims 8,12 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

3. The following is a statement of reasons for the indication of allowable subject matter: present application discloses a method and an apparatus of a data receiver comprising a limiting amplifier and a peak detector. Prior art teaches all the limitations claimed. And although prior art also teaches a bias generator, prior art does not explicitly teach or suggest in combination of wherein the bias generator is used to bias both the limiting amplifier and the peak detector.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nagahori et al. US 6,275,541 B1 teach a digital receiver comprising a limiting amplifier and impedance controller.

Poskatcheev US 6,674,312 B2 teaches a circuitry comprising a limiting amplifier coupled to a level detection element, and performing a function of matching impedance.

RF Micro Device, Inc. Investor Relations http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=RFMD&script=410&layout=-6&item_id=262277

February 25, 2002, discloses introduction of their product lines including RF3730.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Ahn whose telephone number is (571) 272-3044. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sam K. Ahn
Patent Examiner

4/6/07